

Docket No. 243579US0X/atp



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Tetsuo SUZUKI, et al.

SERIAL NO: 10/677,309

GAU:

FILED: October 3, 2003

EXAMINER:

FOR: METHOD OF RECLAIMING SILICON WAFERS

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

REFERENCES

- ☒ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

- ☒ Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s), together with a copy of the claims and drawings of the pending application(s) is attached along with PTO 1449.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

- ☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

DEPOSIT ACCOUNT

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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DOCKET NO.: 243579US0X/atp



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STATEMENT OF RELEVANCY

Reference AI (JP 2002-270568) on Form PTO 1449:

This reference relates to a method of manufacturing semiconductor wafer and metal monitoring device.

Reference AJ (JP 2002-158207) on Form PTO 1449:

This reference relates to a method of recycling silicon single crystal wafer with copper films and recycled wafer.

Reference AK (JP 2001-213694) on Form PTO 1449:

This reference relates to a semiconductor wafer with low copper content.

Reference AL (JP 2001-174375) on Form PTO 1449:

This reference relates to a wafer for evaluation of metal contamination and method therefore.

Reference AM (JP 2000-164558) on Form PTO 1449:

This reference relates to a method for reproducing silicon wafer with metal film.

Reference AN (JP 9-064133) on Form PTO 1449:

This reference relates to a detecting method of Cu concentration in semiconductor substrate.

Reference AO (JP 9-017833) on Form PTO 1449:

This reference relates to an evaluation method and regeneration method for semiconductor wafer, and its device.

Reference AP (JP 7-122532) on Form PTO 1449:

This reference relates to a production of regenerated wafer.

Reference AQ (JP 6-168998) on Form PTO 1449:

This reference relates to an evaluating method for contamination.

Reference AR (JP 5-315428) on Form PTO 1449:

This reference relates to an estimation method of contamination impurities.



Form PTO 1449 (Modified)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY DOCKET NO. 243579US0X		SERIAL NO. 10/677,309	
LIST OF REFERENCES CITED BY APPLICANT				APPLICANT Tetsuo SUZUKI, et al.			
				FILING DATE October 3, 2003		GROUP	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA	6,451,696	09/17/2002	Y. HARA, et al.			
	AB	6,406,923	06/18/2002	H. INOUE, et al.			
	AC	6,384,415	05/07/2002	T. SUZUKI, et al.			
	AD	5,885,334	03/23/1999	T. SUZUKI, et al.			
	AE	5,855,735	01/05/1999	S. TAKADA, et al.			
	AF	5,622,875	04/22/1997	J. E. LAWRENCE			
	AG	3,923,567	12/02/1975	J. E. LAWRENCE			
	AH						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES NO		
	AI	2002-270568	09/20/2002	JAPAN (with English Abstract)		X	
	AJ	2002-158207	05/31/2002	JAPAN (with English Abstract)		X	
	AK	2001-213694	08/07/2001	JAPAN (with English Abstract)		X	
	AL	2001-174375	06/29/2001	JAPAN (with English Abstract)		X	
	AM	2000-164558	06/16/2000	JAPAN (with English Abstract)		X	
	AN	9-064133	03/07/1997	JAPAN (with English Abstract)		X	
	AO	9-017833	01/17/1997	JAPAN (with English Abstract)		X	
	AP	7-122532	05/12/1995	JAPAN (with English Abstract)		X	
	AQ	6-168998	06/14/1994	JAPAN (with English Abstract)		X	
	AR	5-315428	11/26/1993	JAPAN (with English Abstract)		X	
	AS						
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)							
	AT	E. R. WEBER, Applied Physics A, vol. 30, pages 1-22, "TRANSITION METALS IN SILICON", 1983					
	AU	H. PRIGGE, et al., J. Electrochem. Soc., Technical Papers, Solid-State Science and Technology, vol. 138, no. 5, pages 1385-1389, "ACCEPTOR COMPENSATION IN SILICON INDUCED BY CHEMOMECHANICAL POLISHING", May 1991					
	AV	M. B. SHABANI, et al., J. Electrochem. Soc., vol. 143, no. 6, pages 2025-2029, "LOW-TEMPERATURE OUT-DIFFUSION OF Cu FROM SILICON WAFERS", June 1996					
	AW	A. A. ISTRATOV, et al., Physical Review Letters, vol. 81, no. 6, pages 1243-1246, "INTRINSIC DIFFUSION COEFFICIENT OF INTERSTITIAL COPPER IN SILICON", August 10, 1998					
	AX	C. BEAUDRY, et al., MICRO, pages 41-54, "EVALUATING WAFER RECLAIM TECHNIQUES IN EMERGING COPPER PROCESSES", March 2000					
	AY						
Examiner					Date Considered		
<p>*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>							



LIST OF RELATED CASES

<u>Docket Number</u>	<u>Serial or Patent Number</u>	<u>Filing or Issue Date</u>	<u>Inventor/ Applicant</u>
228953US0X	10/255,668	09/27/02	SUZUKI, et al.
243579US0X*	10/677,309	10/03/03	SUZUKI, et al.

*Present Application; listed for information
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